

REMARKS

Reconsideration and allowance of the present application in view of the above amendments and following remarks are respectfully requested. By this Amendment, claims 1, 2, 4, 5 and 11 have amended to merely clarify the recited subject matter. Support for these amendments may be found in the specification generally and more specifically in the text at pages 9-12. These amendments were not made earlier because they are made in response to the points first presented in the final rejection. Claims 1-14 are pending.

Claims 1-14 are rejected under 35 U.S.C. 102(b) over Joong et al. (U.S. Patent No. 6,134,433; hereafter "Joong"). The rejection is respectfully traversed because Joong fails to disclose, teach or suggest all the features recited in the rejected claims. For example, Joong fails to disclose, teach or suggest a method or equipment used for call forwarding via one of several alternative lines on the basis of subscriber data related to the call forwarding, including transmitting a response message from the subscriber database to the forwarding exchange, the message comprising data indicating the call forwarding, forwarding number and a basic service code and implementing call routing to the forwarding number by selecting one of said alternative lines based on the basic service code as recited in various permutations in the rejected independent claims.

The present invention relates to a problem that occurs in connection with call forwarding when a subscriber has several different services available, e.g., voice calls, data calls and facsimile data calls. In such a situation it is important to ensure that an incoming call is routed to a forwarding number which is capable of handling that kind of call. This means that voice calls should be routed to a forwarding number where the subscriber can receive the voice call and, similarly, facsimile data calls should be routed to a forwarding number providing facsimile data service for the subscriber. It is also important that incoming calls are routed using such connections or lines that are best suited for the type of calls.

An exchange implementing call routing may have several available optional lines that could be used to route the call to the forwarding number. These lines may have different properties. However, a data call should be routed via a line that offers a high quality and/or capacity. On the other hand, it is usually cheaper to route a voice call via a line that offers a lower quality and/or capacity, as the quality/capacity in this case is sufficient for a voice call (but not for a data call).

The independent claims 1, 2, 4, 5 7 and 11 recite an invention that provide a solution that makes it possible to ensure that an incoming call is routed to a suitable forwarding number by using suitable lines. This is, according to the independent claims, achieved with a solution where a subscriber database, in response to a subscriber data request, transmits a response message to the exchange which carries out the routing of the call. This response message includes a forwarding number and a basic service code. The basic service code is then used by the routing exchange to implement the call routing such that a suitable line among several alternative lines is selected based on the basic service code.

To the contrary and as explained previously, Joong merely teaches that the type of call be identified to the HLR/SCP (Home Location Register/Service Control Point). To accomplish this, the calling party may perform a two stage dialing procedure in which different pilot numbers are utilized to identify different types of calls or the type of call may be identified by assigning different numbers to the called mobile station, depending on the type of call made. Regardless of which technique is used, once the type of call is identified, the HLR/SCP provides the relevant transfer number to the mobile switching center (MSC) which then routes the call to the transfer number (Column 5, lines 42-44).

Thus, Joong merely teaches a solution that makes it possible to ensure that an incoming call is routed to a forwarding number capable of handling the call type. However, Joong fails to teach or suggest implementing call routing to a forwarding number via one of several alternative lines according to the call type indicated by the basic service code. Nor

does it teach or suggest that such a feature would be advantageous. In fact, Joong fails to even teach or suggest that there might exist alternative lines that could be used in the call routing to the forwarding number.

Moreover, Joong also fails to teach or suggest a subscriber database transmitting, to a routing exchange, a response message, including both a forwarding number and a basic service code indicating the necessary properties of the line which should be selected in routing the call. Joong actually teaches away from such a solution by teaching that it is necessary for the HLR/SCP to receive information about the call type (see, column 5, lines 57-58). Thus, it should not be surprising that Joong fails to teach or suggest whether it would be advantageous that also the routing exchange receives this information. Therefore, one of ordinary skill in the art would have failed to recognize the importance of the routing exchange receiving information on the call type (the basic service code).

Accordingly, independent claims 1, 2, 4, 5, 7 and 11 and all the remaining claims dependent thereon are patentable over Joong et al. Thus, withdrawal of the rejection of claims 1-14 under 35 U.S.C. §102(b) is respectfully requested.

All rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

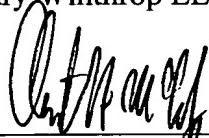
If any points remain in issue which may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached Appendix is captioned "Version with markings to show changes made".

Respectfully submitted,

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Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Twice Amended) A method for implementing call forwarding in a mobile system comprising at least one forwarding exchange for carrying out call forwarding via one of several alternative lines on the basis of subscriber data related to the call forwarding, and at least one subscriber database for storing the subscriber data related to the call forwarding, the method comprising:

receiving at the forwarding exchange a call set-up message addressed to a subscriber in the mobile system;

performing a subscriber data request to the subscriber database;

transmitting a response message from the subscriber database to the forwarding exchange, the message comprising data indicating the call forwarding, a forwarding number and a basic service code; and

implementing call routing to the forwarding number [according to] by selecting one of said alternative lines based on the basic service code.

2. (Twice Amended) A method for implementing call forwarding in a mobile system comprising at least a first exchange for carrying out call forwarding via one of several alternative lines on the basis of subscriber data related to the call forwarding and at least one home location register connected to the first exchange for storing the subscriber data related to the call forwarding, the method comprising:

receiving at the first exchange a call set-up message addressed to a subscriber in the mobile system;

requesting routing information from the home location register;

transmitting a response message from the home location register to the first exchange, the message comprising data indicating the call forwarding, a forwarding number, and a basic service code indicating the basic service related to the call; and

implementing call routing to the forwarding number [according to] by selecting one of said alternative lines based on said basic service code.

4. (Twice Amended) A method for implementing call forwarding in a mobile system comprising at least one exchange for carrying out call forwarding via one of several alternative lines on the basis of subscriber data related to the call forwarding and at least one visitor location register for storing the subscriber data related to the call forwarding, the method comprising:

receiving at the exchange a call set-up message addressed to a subscriber in the mobile system;

providing a subscriber data request to the visitor location register connected to the exchange;

transmitting a response message from the visitor location register to the exchange, the message comprising data indicating the call forwarding, a forwarding number and a basic service code; and

implementing call routing to the forwarding number [according to] by selecting one of said alternative lines based on the basic service code.

5. (Twice Amended) A home location register connected to a first exchange in a mobile system, wherein the home location register is arranged to transmit a basic service code to the first exchange in connection with a response message to a routing information request, [the data indicating] the basic service code indicating the necessary properties of the line which should be selected in routing the call [related to the call].

7. (Twice Amended) A first exchange in a mobile system, comprising means for transferring a call to a forwarding number via one of several alternative lines, wherein the exchange is arranged to derive a basic service code from the call-set up message or from a response message transmitted by the home location register to the first exchange in response to a subscriber data request; and

the exchange is arranged to route the call to the forwarding number [according to] by selecting one of said alternative lines based on the basic service code.

11. (Twice Amended) An exchange in a mobile system, comprising means for transferring a call to a forwarding number via one of several alternative lines, wherein the exchange is arranged to derive a basic service code from basic service data that indicates the basic service of the call and that is transmitted in connection with the call set-up message or a response message transmitted from the visitor location register to the exchange in response to a subscriber data request, and

the exchange is arranged to perform routing to the forwarding number [according to] by selecting one of said alternative lines based on said basic service code.